

# METHOD OF FABRICATING MAGNETIC HEAD WITH ANTI-PARALLEL PASSIVE PINNED REGIONS

## ABSTRACT

A magnetic head and method for forming the same. Leads are added to a wafer stack having a free layer, a bias layer, and a spacer layer between the free layer and bias layer. A gap is formed between the leads. A protective layer is added to the wafer stack such that the gap is covered, as well as facing ends of the leads. Material is removed from at least one side area of the wafer stack using the protective layer as a mask. The protective layer is removed. A portion of the bias layer below the gap is processed for reducing a magnetic moment of the bias layer in the portion of the bias layer below the gap for forming a sensor in which magnetic moments of end portions of the free layer are pinned by magnetic moments of end portions of the bias layer, and preferably antiparallel thereto.